



Office of
Dietary Supplements
National Institutes of Health

ODS Update

September 2009

The e-newsletter of the Office of Dietary Supplements (ODS)

News You Can Use

New Evidence-Based Review:

Health Outcomes Related to Vitamin D and Calcium

The Agency for Healthcare Research and Quality (AHRQ) of the U.S. Department of Health and Human Services has published *Vitamin D and Calcium: Systematic Review of Health Outcomes*, a summary of the evidence on the relationship between vitamin D, calcium, and a combination of both nutrients on a wide range of health outcomes. The report was requested and funded by ODS together with the Public Health Agency of Canada, Health Canada, and the U.S. Food and Drug Administration and was prepared by the Tufts Evidence-based Practice Center in Boston. Its purpose is to support a review of the evidence and potential revision of the current Dietary Reference Intake (DRI) values for calcium and vitamin D, currently in progress by the Institute of Medicine/Food and Nutrition Board.

According to the report, the majority of findings for calcium and/or vitamin D on health outcomes were inconsistent. The available evidence focused mainly on bone health, cardiovascular diseases, and cancer outcomes. Among the findings:

- Inconsistent results for colorectal and prostate cancer, and pregnancy-related outcomes (including preeclampsia);
- In hypertensive adults, calcium supplementation lowered systolic, but not diastolic, blood pressure by 2-4 mm Hg;
- No significant effects of increased calcium intake on body weight;
- No significant effect on weight or height gain in children attributable to calcium supplementation;
- Vitamin D plus calcium supplementation resulted in small increases in bone mineral density in the spine and other areas among postmenopausal women; and
- Calcium intakes in premenopausal women were associated with a decreased risk of breast cancer.

Vitamin D and Calcium: Systematic Review of Health Outcomes is available in its entirety at <http://www.ahrq.gov/clinic/tp/vitadcaltp.htm>.

Vitamin D Standard Reference Material Now Available

ODS and the National Institute of Standards and Technology (NIST) announced in June the availability of a Standard Reference Material (SRM) for plasma 25-hydroxyvitamin D [25(OH)D] that can be used to standardize the methodology for measuring vitamin D status. Known as *SRM 972—Vitamin D in Human Serum*, it will serve as a reproducible point of comparison of results across laboratories and within a given laboratory over time.

The availability of this SRM is important given the increased scientific study of vitamin D's effects on health and growing number of people who have blood drawn to have their levels of 25(OH)D measured. At present, there is substantial variability in the results obtained depending on the method of analysis used, on which laboratory is chosen, and even within the same laboratory at different times. By using this SRM, clinical laboratories can calibrate their instruments to obtain more precise and reproducible measures.

Further information about SRM 972 is available at https://www-s.nist.gov/srmors/view_detail.cfm?srm=972.

Even though plasma 25(OH)D concentrations may now be more accurately and reliably determined, optimal levels of this biomarker for bone and general health have not been established. A range of cut-points that have been proposed by various experts (from 16 to 48 ng/mL) reflect differences in the functional endpoints chosen (e.g., parathyroid hormone levels, bone fractures, and cancer prevention). These and related matters are detailed in a revised and updated Vitamin D fact sheet from ODS, available at <http://ods.od.nih.gov/factsheets/vitamind.asp>.

Now Available:

Scientific Literature Search Results on Autism and Dietary Supplements

The ODS search of publications of studies evaluating dietary supplements and autism spectrum disorders is now available from IBIDS, the International Bibliographic Information on Dietary Supplements database maintained by ODS and the U.S. Department of Agriculture's National Agriculture Library. Five other "Health Outcome/Supplement Sets" search results are also available: cancer and vitamin D intake; weight loss and calcium; menopausal symptoms and herbals; athletic performance and creatine; and cardiovascular health and omega-3 fatty acids. As a whole, each Health Outcome/Supplement set is intended to provide a balanced overview of the outcome and supplement pair as it pertains to humans.

IBIDS can be found on the ODS Web site at http://ods.od.nih.gov/Health_Information/IBIDS.aspx.

In addition to the above-mentioned staff-prepared searches, you can use IBIDS to conduct your own searches of the scientific literature on any topic related to dietary supplements.

New Funding Opportunities for Research

ODS collaborates on funding initiatives across NIH and with other agencies through mechanisms such as Requests for Applications (RFAs), Program Announcements (PAs), and Notices, which can be found at <http://grants.nih.gov/grants/guide>. In the last three months, ODS has signed onto the following RFAs, PAs, and Notices:

Research Project Grants

- **Bioenergetics, fatigability, and activity limitations in aging**

R01 issued by various components of the NIH: PA-09-190

<http://grants.nih.gov/grants/guide/pa-files/PA-09-190.html>

R21 issued by various components of the NIH: PA-09-191

<http://grants.nih.gov/grants/guide/pa-files/PA-09-191.html>

R03 issued by various components of the NIH: PA-09-192

<http://grants.nih.gov/grants/guide/pa-files/PA-09-192.html>

- **Development and validation of disease biomarkers**

R01 issued by various components of the NIH: PA-09-204

<http://grants.nih.gov/grants/guide/pa-files/PA-09-204.html>

- **NIDDK small grants for clinical scientists to promote diversity in health-related research**

R03 issued by the National Institute of Diabetes and Digestive and Kidney Diseases: PAR-09-223

<http://grants.nih.gov/grants/guide/pa-files/PAR-09-223.html>

- **Improving diet and physical activity assessment**

R01 issued by various components of the NIH: PAR-09-224

<http://grants.nih.gov/grants/guide/pa-files/PAR-09-224.html>

R21 issued by various components of the NIH: PAR-09-225

<http://grants.nih.gov/grants/guide/pa-files/PAR-09-225.html>

- **Clarification of specific objective in PAR-09-224:
Improving Diet and Physical Activity Assessment**

R01 issued by various components of the NIH: NOT-CA-09-032
<http://grants.nih.gov/grants/guide/notice-files/NOT-CA-09-032.html>

- **Diet, epigenetic events, and cancer prevention**

R01 issued by various components of the NIH: PA-09-234
<http://grants.nih.gov/grants/guide/pa-files/PA-09-234.html>

R21 issued by various components of the NIH: PA-09-235
<http://grants.nih.gov/grants/guide/pa-files/PA-09-235.html>

- **Building interdisciplinary research careers in women's health**

K12 issued by various components of the NIH: RFA-OD-09-006
<http://grants.nih.gov/grants/guide/rfa-files/RFA-OD-09-006.html>

- **Small grant program for NIDDK K01/K08/K23 recipients**

R03 issued by the National Institute of Diabetes and Digestive and Kidney Diseases: PAR-09-230
<http://grants.nih.gov/grants/guide/pa-files/PAR-09-230.html>

Ruth L. Kirschstein National Research Service Awards

- **Individual senior fellows**

F33 issued by various components of the NIH: PA-09-211
<http://grants.nih.gov/grants/guide/pa-files/PA-09-211.html>

- **Individual postdoctoral fellows**

F32 issued by various components of the NIH: PA-09-210
<http://grants.nih.gov/grants/guide/pa-files/PA-09-210.html>

- **Individual predoctoral fellowships to promote diversity in health-related research**

F31 issued by various components of the NIH: PA-09-209
<http://grants.nih.gov/grants/guide/pa-files/PA-09-209.html>

- **Individual predoctoral fellows**

F31 issued by various components of the NIH: PA-09-208
<http://grants.nih.gov/grants/guide/pa-files/PA-09-208.html>

- **Individual predoctoral MD/PhD and other dual doctoral degree fellows**

F30 issued by various components of the NIH: PA-09-207
<http://grants.nih.gov/grants/guide/pa-files/PA-09-207.html>

ODS Programs and Activities

Expanded Web Coverage of Analytical Methods/Reference Materials Program

Information about the ODS Analytical Methods/Reference Materials (AMRM) Dietary Supplements Program has been restructured and expanded on the ODS Web site. The site now provides more detailed information about AMRM activities and resources for researchers in this area. The topic headings on the site include an AMRM program description; reference materials for dietary supplement analysis; dietary supplements laboratory quality assurance program; analytical methods for dietary supplements; training, education, and outreach; related resources; and a glossary.

The direct link to information about the ODS AMRM program is
<http://ods.od.nih.gov/AnalyticalMethods>.

ODS Staff News

Sarah Peterson, BA, joined ODS in July as a part-time contractor to assist with various projects, including the planning of a workshop on healthcare economics scheduled for February 2010. She is in her second year at the School of Public Health and Health Services at The George Washington University, where she is pursuing an MPH in Global Health. Previously, Sarah worked at the USDA Human Nutrition Research Center on Aging at Tufts University in Boston.

Recent ODS Staff Publications

Mary Frances Picciano, Elizabeth A. Yetley, Paul M. Coates, and Michelle Kay McGuire. Update on folate and human health. *Nutrition Today* 44(4):142-152, July/August 2009.

Joseph M. Betz, Linda Anderson, Mark I. Avigan, Joanne Barnes, Norman R. Farnsworth, Barbro Gerdén, Leigh Henderson, Edward J. Kennelly, Uwe Koetter, Stephanie Lessard, Tieraona Low Dog, Michelle McLaughlin, Belal Naser, Ruediger G.W. Osmers, Linda S. Pellicore, John R. Senior, Richard B. van Breemen, Wolfgang

Wuttke, and **John H. Cardellina II**. Black cohosh: considerations of safety and benefit. *Nutrition Today* 44(4):155-162, July/August 2009.

Anne C. Looker, David A. Lacher, Christine M. Pfeiffer, Rosemary L. Schleicher, **Mary Frances Picciano**, and **Elizabeth A. Yetley**. Letter: data advisory with regard to NHANES serum 25-hydroxyvitamin D data. *American Journal of Clinical Nutrition* 90(9):695, September 2009.

Sameera A. Talegawkar, Giangiacomo Beretta, Kyung-Jin Yeum, Elizabeth J. Johnson, Teresa C. Carithers, Herman A. Taylor Jr, **Robert M. Russell**, and Katherine L. Tucker. Total Antioxidant performance is Associated with Diet and Serum Antioxidants in Participants of the Diet and Physical Activity Substudy of the Jackson Heart Study. *The Journal of Nutrition*, 139:1964-1971, 2009.

Upcoming Events (October- November 2009)

American College of Nutrition 50th Annual Meeting

October 1-4: Orlando, FL

Web site: <http://208.106.230.67/Default.aspx?tabid=37>

ODS is sponsoring the symposium, "Update on Nutrition Research Methodologies," on October 4. Dr. Rebecca Costello of ODS and Dr. Catherine Loria of NHLBI will be moderating. *Visit the ODS booth #2.*

American Dietetic Association Food & Nutrition Conference & Expo

October 17- 20: Denver, CO

Web site: <http://www.eatright.org/cps/rde/xchg/ada/hs.xsl/events.html>

Dr. Johanna Dwyer will be moderating a panel on "Funding Nutrition Research: Who Can You Trust?" on October 18. *Visit the ODS booth #905.*

AARP National Event & Expo

October 21-24: Las Vegas, NV

Web site: <http://www.aarp.org/aarp/events/Life at 50 Las Vegas/>

Visit the ODS booth #153.

SupplySide West

November 11-13: Las Vegas, NV

Web site: <http://www.supplysideshow.com/west/>

ODS is sponsoring the nutrition track of the meeting's education program. Dr. Joseph Betz will speak on dietary supplements methods validation, quality and compliance. *Visit the ODS booth #16091.*

Council for Responsible Nutrition: CRN's Day of Science

October 21: Rancho Palos Verdes, CA

Web site: <http://www.crnusa.org/TheWorkshop/>

Dr. Paul Coates is the chair for the session, "Different perspectives on nutritional supplement research." Dr. Joseph Betz will present, "Scientific and Methodological Issues in Dietary Supplement Research, during the session, "Unique Challenges and Possible Solutions for the Scientific Evaluation of Botanicals and Specialty Dietary Supplements."

4th International Symposium:

New Horizons in Chinese Medicines and Health Foods

October 29-30: Hong Kong

Web site: <http://myweb.polyu.edu.hk/~bcffs/>

Dr. Joseph Betz will give a keynote lecture titled, "Scientific and Regulatory Challenges in Research on Dietary Supplements and Functional Foods," on October 30.

International Society for Nutraceuticals and Functional Foods Meeting

November 1-4: San Francisco, CA

Web site: http://isnff.org/viewpage_plain/cms/id/42/2009_Annual_Conference

Dr. Joseph Betz will chair a scientific session on analytical methods for nutraceuticals and functional foods and give a keynote lecture, "The ODS Analytical Methods and Reference Materials Program," on November 2. Dr. Betz is on the editorial board of the Journal of ISNFF which meets on November 3.

ODS Update provides information on news, activities, and resources from the Office of Dietary Supplements (ODS). ODS is a program office within the Office of the Director of the National Institutes of Health (NIH). The mission of ODS is to strengthen knowledge and understanding of dietary supplements by evaluating scientific information, stimulating and supporting research, disseminating research results, and educating the public to foster an enhanced quality of life and health for the U.S. population.

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